

METHOD AND APPARATUS FOR COUPLING TO A SOURCE LINE
IN A MEMORY DEVICE

ABSTRACT OF THE DISCLOSURE

- 5 A method and apparatus for coupling to a source line. Specifically, embodiments of the present invention disclose a memory device comprising an array of flash memory cells with a source line connection that facilitates straight word lines, and a method for producing the same. The array is comprised of a plurality of non-intersecting shallow trench isolation (STI) regions that isolate a plurality of memory cell columns. A source column implanted with n-type dopants is also isolated between an
- 10 adjoining pair of STI regions. The source column is coupled to a plurality of common source lines that are coupled to a plurality of source regions in the array. A source contact is coupled to the source column for providing electrical coupling with the plurality of source regions. The source contact is located along a row of drain contacts that are coupled to drain regions of a row of memory cells.